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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/673,680	10/17/2000	Hiroyuki Takahashi	MOR-223-A	4008

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EXAMINER

STONER, KILEY SHAWN

ART UNIT

PAPER NUMBER

1725

DATE MAILED: 03/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/673,680

Applicant(s)

TAKAHASHI ET AL.

Examiner

Kiley Stoner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6 and 11-13 is/are rejected.
- 7) ☒ Claim(s) 3,7-10 and 14-18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/17/00 10/10/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

The drawings were received on 1/22/01. These drawings are approved by the Examiner.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4-6, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimizu (JP-10036851A). Shimizu teaches a heating chamber (Figures and paragraph [0023]); an inlet port for introducing wastes into said heating chamber (abstract, paragraph [0035]); at least one pair of electrodes provided within said heating chamber; a light emitting heater consisting of a plurality of balls which contain carbon as a main ingredient (Figures; and paragraphs [0015-0016], [0018]), said light emitting heater being provided between said at least one pair of electrodes so as to produce an electric discharge when a voltage is applied across said at least one pair of electrode (paragraphs [0011], [0020-0021], [0030]); and an outlet port for discharging substantially harmless gases out of the heating chamber (abstract; and paragraphs [0023], [0033]); said plurality of balls are each made of a material selected from the group consisting of

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charcoal, graphite, and a carbon composite material (Figures and paragraph [0018]). It is the examiner's position that the carbon balls/particles of Shimizu would inherently be impermeable. In addition, the particles of Shimizu are in the form of a sphere (Figures).

With respect to claim 12, Shimizu teaches a pair of electrodes (paragraph [0011], [0020-0021], [0030]). The limitation "the parts of electrodes may take the form of a rod or horn surrounded by said plurality of balls" does not positively limit the structure of the electrodes.

Claims 1, 2, 4-6, 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by (JP-10141644A). JP-10141644A teaches a heating chamber (abstract; Figures); an inlet port for introducing wastes into said heating chamber (Figures #22); at least one pair of electrodes provided within said heating chamber (abstract); a light emitting heater consisting of a plurality of balls which contain carbon as a main ingredient, said light emitting heater being provided between said at least one pair of electrodes so as to produce an electric discharge when a voltage is applied across said at least one pair of electrode (abstract and paragraph [0031]); and an outlet port for discharging substantially harmless gases out of the heating chamber (paragraphs [0032], [0037]); means for placing and heating chamber in an oxygenless environment such that said plurality of balls are placed in an oxygenless environment (paragraphs [0032], [0036]); said plurality of balls are each made of a material selected from the group consisting of charcoal, graphite, and a carbon composite material (abstract and paragraph [0031]). It is the examiner's position that the carbon balls/particles of JP-10141644A would

inherently be impermeable. In addition, the particles/balls carbon of JP-10141644A is in the form of a sphere (Figures).

JP-10141644A also teaches at least portions of an inner wall of said heating chamber are placed in contact with said plurality of balls, and wherein at least portions of the inner wall are made of a monolithic refractory material selected from the group consisting of boron nitride, niobium, silicon carbide, boron carbide, magnesium oxide, hafnium oxide, hafnium dioxide, beryllium aluminum oxide, and mixtures thereof (paragraphs [0032-0033]); and a pipe for introducing liquid wastes into said heating chamber (paragraph [0033], #22).

With respect to claim 12, JP-10141644A teaches a pair of electrodes (abstract and Figures). The limitation "the parts of electrodes may take the form of a rod or horn surrounded by said plurality of balls" does not positively limit the structure of the electrodes.

Claims 1, 4-6 and 11-12 are rejected under 35 U.S.C. 102(b) as being anticipated by (JP-11148779A). JP-11148779A teaches a heating chamber (abstract and Figures); an inlet port for introducing wastes into said heating chamber (Figures); at least one pair of electrodes provided within said heating chamber (abstract and Figures); a light emitting heater consisting of a plurality of balls which contain carbon as a main ingredient, said light emitting heater being provided between said at least one pair of electrodes so as to produce an electric discharge when a voltage is applied across said at least one pair of electrode (abstract); and an outlet port for discharging

substantially harmless gases out of the heating chamber (paragraph [0008]); said plurality of balls are each made of a material selected from the group consisting of charcoal, graphite, and a carbon composite material (paragraph [0010]). It is the examiner's position that the carbon balls/particles of JP-11148779A would inherently be impermeable. In addition, the carbon particles/balls of JP-11148779A are in the form of a sphere (Figures).

JP-11148779A also teaches wherein at least portions of the inner wall are made of a monolithic refractory material selected from the group consisting of boron nitride, niobium, silicon carbide, boron carbide, magnesium oxide, hafnium oxide, hafnium dioxide, beryllium aluminum oxide, and mixtures thereof (paragraphs [0007]).

With respect to claim 12, JP-11148779A teaches a pair of electrodes (abstract and Figures). The limitation "the parts of electrodes may take the form of a rod or horn surrounded by said plurality of balls" does not positively limit the structure of the electrodes.

Allowable Subject Matter

Claims 3, 7-10 and 14-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art of record that is cited as of interest is presented on the form-892.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kiley Stoner whose telephone number is (571) 272-1183. The examiner can normally be reached on Monday-Thursday (7:30 a.m. to 6:00 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on Monday-Friday at (571) 272-1171. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kiley Stoner A.U. 1725

Kiley Stoner 3/11/04